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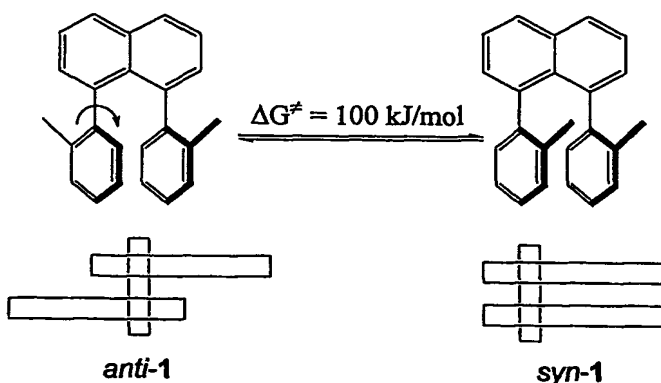
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(54) Title: CHIRAL 1,8-DIARYLNAPHTHALENES, METHODS OF MAKING THEM, AND THEIR USE AS SENSORS



(57) Abstract: One aspect of the invention relates to 1,8-diarylnaphthalene compounds. In certain embodiments, a compound of the invention is an *N*-oxide of a 1,8-diarylnaphthalene. In certain embodiments, the aryl group is an optionally substituted acridyl group. In certain embodiments, a compound of the invention is a single stereoisomer. In certain embodiments, a compound of the invention is a single enantiomer. Another aspect of the present invention relates to a method of detecting the presence of an analyte in a sample by monitoring the fluorescence of a compound of the invention in a sample. In certain embodiments, the analyte is a metal ion. Another aspect of the present invention relates to a method of determining the enantiomeric purity of an analyte by monitoring the fluorescence of a compound of

the invention in the presence of the analyte. In certain embodiments, the analyte is a compound that is capable of hydrogen bonding.